

ABSTRACT

A method of manufacturing a semiconductor device includes the formation of a dielectric film on a substrate having an effective device area surrounded by a peripheral area. A resist pattern exposing part of the dielectric film in the peripheral area is formed, and the dielectric film is etched to reduce the thickness of the exposed part. After the resist pattern has been removed, the dielectric film is planarized by chemical-mechanical polishing. Good planarity is achieved because the etching step removes high parts of the dielectric film from the peripheral area. This method of achieving improved planarity is less expensive than conventional methods employing dummy devices.